AMENDMENTS TO THE SPECIFICATION

Please substitute the following amended paragraph for the pending paragraph beginning on page 14, line 8:

The system builds up a correlation vector for each pair of users, x and y, $\{print_{xy}, rate_{xy}\}$. For print actions (other implicit recommending actions such as reading, scanning, copying may be added as well) the correlation between two users is the relative frequency in which the two users perform the same action on the same documents, given by Equation 2:

$$print_{xy} = \frac{3D}{4D} \frac{D_x \cap D_y}{D_x \cup D_y} \qquad \text{Equation 2}$$

That is, the print correlation for two users X and Y is the number of documents in common that both users have printed, divided by the total sum of documents printed by both users.

Please substitute the following amended paragraph for the pending paragraph beginning on page 14, line 15:

The rating correlation between two users can be calculated statistically, for example using the *Pearson Algorithm* described by P. Resnick, N. Iacovou, M. Suchak, P. Bergstrom & J. Riedl: "GroupLens: An Open Architecture for Collaborative Filtering of Netnews". In Proceeding of CSCW'94, October 22-26, Chapel Hill, NC, 1994 and shown in Equation 3. *Xi* and *Yi* represent the ratings of user *X* and *Y* respectively for item *i*. The algorithm yields values that range from −1 (when *X* and *Y* tend to disagree), to 0 (when *X* and *Y* `s actions are uncorrelated) and to 1 (when *X* and *Y* tend to agree perfectly). Note that the only items taken into account for these computations are the ones that both *X* and *Y* have rated.

$$r_{XY} = \frac{Cov(X,Y)}{\sigma_X \sigma_Y} \text{ or}$$

$$r_{XY} = \frac{\sum_i (X_i - \overline{X})(Y_i - \overline{Y})}{\sqrt{\sum_i (X_i - \overline{X})^2} \sqrt{\sum_i (Y_i - \overline{Y})^2}},$$

where $-1 \le r_{XY} \le 1$ Equation 3